REMARKS/ARGUMENTS

Reexamination and reconsideration of this Application, withdrawal of the rejections, and formal notification of the allowability of all claims as now presented are earnestly solicited in light of the above amendments and remarks that follow. Claims 1 and 3-20 are pending in the application.

Claims 1, 3-15, and 17-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the previously-cited Counts and Zhuang patents, in view of the previously-cited Yang publication and newly cited reference by Keith *et al.* Claim 16 stands rejected as obvious over the above-noted references, further in view of the Degel reference. Similar to a previous rejection now withdrawn, the Examiner relies upon the modification of a filter described in the Counts reference in view of the Zhuang and Yang references. The Examiner also now relies on the Keith reference as motivating a further modification of a sub-element of the Zhuang filter component. Applicants respectfully traverse these rejections.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim elements. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck,* 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Applicants first note that the piecemeal selection and arrangement of various filter elements from the Counts, Zhuang, and Yang references required to form the present rejection is highly suggestive that the Examiner is improperly relying on Applicants' disclosure as a guide in reviewing the teachings of the prior art. While it is true that the Zhuang and Yang references briefly refer back to the Counts filter structure, there is nothing suggesting the specific arrangement of elements relied upon by the Examiner to arrive at the presently-claimed invention. For example, there is nothing in any of the cited references to lead one of ordinary

skill in the art to place the Zhuang filter element at one end of the tubular free-flow filter 72 of the Counts filter with the carbon particles of Yang between the Zhuang filter component and the terminal filter segment 104 of the Counts filter. Only Applicants' claimed invention could lead the Examiner to arrange these components in this manner. Given the lack of specific teaching in any of the cited references as to specific arrangements of the components taught therein, one of ordinary skill in the art would be just as inclined, if not more so, to place the Zhuang filter component in the middle of the tubular free flow filter section of the Counts filter with the Yang carbon particles on each side. Alternatively, one could arrange the Yang particles in the interior space within the Zhuang filter component. In yet another embodiment, one could place the Zhuang filter component adjacent to the terminal filter element 104 of the Counts filter and place the Yang carbon particles on the tobacco-side of the Zhuang filter component. Other component arrangements could also be envisioned, none of which impact the present claims.

Again, this fact strongly suggests that impermissible hindsight is being utilized to cobble together disparate elements of multiple references in order to arrive at the present claims. The law requires the teachings of the prior art to be considered without reference to Applicants' disclosure. It is respectfully submitted that one of ordinary skill in the art would not arrive at the presently-claimed invention based on the references cited by the Examiner because there are no specific teachings as to how the various filter components should be arranged in an advantageous manner. For example, as noted by the Examiner, the Zhuang reference simply mentions in passing that the filter component 30 can be substituted as part of, or in place of, the tubular free flow filter element 102 set forth in the Counts patent. There is no suggestion as to the specific arrangement of the Zhuang filter component within the tubular free flow element of Counts, and certainly nothing to suggest how one should arrange the Zhuang filter component in relation to activated carbon particles from the Yang reference. Numerous permutations could be envisioned, most of which have no relationship to the present claims. In light of the foregoing, Applicants respectfully request reconsideration and withdrawal of these rejections.

Additionally, Applicants submit that the Examiner has not sufficiently explained how one of ordinary skill in the art would be motivated to further modify the Zhuang filter component by replacing elements 32 with a common fibrous tow. Applicants direct the Examiner's attention to

the background section of the Zhuang reference, which specifically mentions prior art cigarette filters incorporating cellulose or other synthetic fibers. The Zhuang patent specifically notes that such filter arrangements generally only remove particulate matter and condensable components from tobacco smoke and "thus are not optimal for the removal of gas-phase constituents from tobacco smoke" (column 1, lines 13-19). The Zhuang reference is intended to provide an improved filter structure comprising a filter element suitable for gas filtration, and expressly mentions that common fibrous materials are not advantageous for this purpose (column 1, lines 46-47 and 51-56). Thus, it is clear from the Zhuang patent that common fibrous tow filter materials are inferior in terms of selective removal of certain gas-phase constituents from cigarette smoke. Since the specific goal of the Zhuang reference is to provide a filter element that selectively remove such gas-phase constituents, it follows that one of ordinary skill in the art with knowledge of the entire teachings of the cited references would not be motivated to replace either of the elements 32 of the Zhuang filter component with common fibrous tow material.

This conclusion is further confirmed by the description of the preferred types of sorbent materials noted in Zhuang, such as activated carbon, zeolites, silicates, alumina phosphates, mixed oxide gels, and the like (column 6, lines 2-30). Such components are known to be filtering materials selective for certain gas-phase components of mainstream cigarette smoke, and are even discussed in the present application as materials that adsorb one of more gas-phase compounds from mainstream smoke (see pages 15-16 of the specification). These types of materials are quite dissimilar from common fibrous tow used in conventional cigarette manufacture. Applicants further note that the filter arrangements described in Zhuang include other filter segments that can comprise fibrous tow material such as mouthpiece filter plug 8 or plug 16 (column 13, lines 19-24). The fact that the Zhuang reference specifically discusses conventional fibrous filter elements that can be incorporated into the filter design, and yet does not remotely suggest that such materials would be suitable as the monolithic sorbent segments 32, is strongly suggestive that one of ordinary skill in the art would not view the combined art cited by the Examiner as motivating one to replace the activated carbon or zeolite materials of the sorbent sections 32 with common fibrous tow. There is also nothing in the Keith reference to suggest that the materials suggested in the Zhuang patent for sorbent sections 32 are

interchangeable with fibrous tow materials. In fact, the data presented in the Keith reference clearly suggests that charcoal and similar materials have quite different filtration characteristics than fibrous tow. Accordingly, for this additional reason, Applicants respectfully request reconsideration and withdrawal of these rejections.

Finally, Applicants note that the present specification includes evidence of surprising results associated with the filter configuration as presently claimed. Specifically, the Examiner's attention is directed to Example 4, wherein testing of cigarettes having the presently-claimed configuration is described. As noted therein, the exemplary cigarettes having a divided compartment containing an adsorbent in the downstream compartment and a hollow upstream compartment provided greater reduction of certain vapor-phase mainstream smoke components as compared to a cigarette of Example 1, which comprises a conventional "plug/space/plug" arrangement. The division of the interior compartment into a hollow upstream section and an adsorbent-fill downstream section results in greater reduction of certain gas phase components. This result is surprising and certainly not anticipated or suggested by any of the art relied upon by the Examiner. For this additional reason, Applicants respectfully submit that any obviousness rejection presented against the pending claims should be overcome as a result of the surprising results presented in the application. Accordingly, for this additional reason, Applicants respectfully request reconsideration and withdrawal of these rejections.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

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